US PTO Customer No.: 25280 23 Inventor(s): Fang et. al. Express Mail Label No.: EL 992174150 US

Case No.: 5682A

5

10

15

5

What is claimed is:

1. A treated textile having applied thereon a treating composition,

comprising:

(a) a textile substrate;

(b) a treating composition, said treating composition comprising:

(i) a fluorochemical-containing soil release component;

(ii) an antimicrobial agent;

(iii) a further component which is either:

a crosslinking component, or

a fluorochemical-containing repellent component;

wherein said treating composition is applied to said textile substrate in a

concentration of less than about 6 weight percent of said fluorochemical-

containing soil release component based upon the weight of the treating

composition.

2. The treated textile of claim 1 wherein said fluorochemical-containing

soil release component comprises a polymeric material selected from the group

consisting of: acrylate-containing polymers, methacrylate-containing polymers

urethane-containing polymers, and fluorinated esters.

US PTO Customer No.: 25280 24 Inventor(s): Fang et. al. Express Mail Label No.: EL 992174150 US

Case No.: 5682A

5

10

3. The treated textile of claim 1 wherein said further component is a hydrophobic crosslinking component, further wherein said hydrophobic crosslinking component comprises a derivative of isocyanate.

- 4. The treated textile of claim 3 wherein said derivative of isocvanate comprises a blocked isocyanate.
- 5. The treated textile of claim 1 wherein said antimicrobial agent comprises an agent selected from the group consisting of: organic antimicrobial agents, silver-containing resins, silver-containing zeolites, silver-containing glass, silver-based ion exchange compounds, triclosan, inorganic antimicrobial materials, metal based zeolites, metal salts, metal oxides, metal hydroxides, transition metal ions, zinc oxide, pyrithione and derivatives (Zinc Omadine), tributyl oxide derivatives, 3-iodo-2-propylbutyl carbamate, nbutyl-1, 2 benziso thiazoline, 10, 10'- oxybisphenoxiarsine, and sodium ophenylphenate.
- 6. The treated textile of claim 5 wherein said antimicrobial agent comprises Zinc Omadine.

US PTO Customer No.: 25280 25 Inventor(s): Fang et. al.

Case No.: 5682A Express Mail Label No.: EL 992174150 US

7. The treated textile of claim 1 wherein said further component (iii) of said treating composition comprises a fluorochemical-containing repellent component.

8. The treated textile of claim 7 wherein said composition additionally comprises a crosslinking component.

9. The treated textile of claim 8 wherein said crosslinking component is

hydrophobic.

5

5

10. The treated textile of claim 9 wherein said fluorochemical-containing repellent component comprises a composition selected from the group consisting of: fluorinated esters, fluorinated urethanes, and fluorinated (meth)acrylates.

11. The treated textile of claim 1, wherein said treated textile is provided with two opposed sides, further wherein said treated textile includes said treating composition on one side only of said treated textile.

- 12. A composition for treating a textile, said composition consisting essentially of:
 - (a) a fluorochemical-containing soil release component:
 - (b) a crosslinking component; and

Inventor(s): Fang et. al. 26 US PTO Customer No.: 25280 Express Mail Label No.: EL 992174150 US

Case No.: 5682A

5

5

(c) an antimicrobial agent;

wherein said fluorochemical-containing component is provided in a concentration of less than about 6 weight percent based upon the total weight of said composition.

- 13. A textile having applied thereon the composition of claim 12.
- 14. A textile treating composition consisting essentially of:
- (a) a fluorochemical-containing soil release component;
- (b) a crosslinking component;
- (c) an antimicrobial agent; and
- (d) a fluorochemical-containing repellent component.
- 15. A composition comprising:
- (a) a fluorochemical-containing soil release component;
- (b) a hydrophobic crosslinking component;
- (c) an antimicrobial agent; and
- (d) an antistatic component.
- 16. The composition of claim 15 wherein said antistatic component comprises a graphite-containing material.

US PTO Customer No.: 25280 27 Inventor(s): Fang et. al. Case No.: 5682A Express Mail Label No.: EL 992174150 US

17. A textile having applied thereon the composition of claim 15.

- 18. The composition of claim 15 wherein said antimicrobial agent comprises a silver-containing material.
- 19. The composition of claim 15 wherein said antimicrobial agent comprises a pyrithione-containing material.
- 20. The composition of claim 19 wherein said antimicrobial agent comprises a zinc pyrithione.
 - 21. A composition for treating a textile or a fabric, comprising:
 - (a) a fluorochemical-containing soil release component;
 - (b) an antimicrobial agent; and

5

10

- (c) a fluorocarbon repellent component.
- 22. The composition of claim 21 further comprising:
 - (d) a cross-linking component.
- 23. The composition of claim 22 wherein the said fluorochemicalcontaining soil release component and said fluorocarbon repellent

Inventor(s): Fang et. al. 28 US PTO Customer No.: 25280 Express Mail Label No.: EL 992174150 US

Case No.: 5682A

15

20

25

5

component, when combined together, comprise no more than about 6 weight percent of said composition.

24. A textile treated with a composition, the composition comprising:

(a) a fluorochemical-containing soil release component;

(b) an antimicrobial agent; and

(c) a further component, said further component being:

a crosslinking component, or

a fluorocarbon repellent component;

wherein said treated textile exhibits according to modified AATCC Test Method 130-1981 a stain release value to corn oil and tanning oil or burned motor oil of at least about 3.

The composition of claim 24 wherein said treated textile exhibits 25. according to modified AATCC Test Method 130-1981 a stain release value to corn oil and tanning oil or burned motor oil of at least about 3 as received and after 500 cycles abrasion.

26. The composition of claim 24 wherein said fluorochemical-containing soil release component comprises a polymeric material selected from the group US PTO Customer No.: 25280 29 Inventor(s): Fang et. al. Case No.: 5682A Express Mail Label No.: EL 992174150 US

consisting of: acrylate-containing polymers, methacrylate-containing polymers urethane-containing polymers, and fluorinated esters.

5

5

- 27. The composition of claim 24 wherein said crosslinking component is hydrophobic and comprises an isocyanate material.
- 28. The composition of claim 26 wherein said hydrophobic crosslinking component comprises a blocked isocyanate.
- 29. The composition of claim 24 wherein said antimicrobial agent comprises an agent selected from the group consisting of: organic antimicrobial agents, silver-containing resins, silver-containing zeolites, silver-containing glass, silver-based ion exchange compounds, triclosan, inorganic antimicrobial materials, metal based zeolites, metal salts, metal oxides, metal hydroxides, transition metal ions, zinc oxide, pyrithione containing materials (Zinc Omadine), tributyl oxide derivatives, 3-iodo-2-propylbutyl carbamate, n-butyl-1, 2 benzisothiazoline, 10, 10'-oxybisphenoxi arsine, sodium o-phenylphenate.
- 30. The composition of claim 29 wherein said antimicrobial agent comprises Zinc Omadine.

Inventor(s): Fang et. al. 30 US PTO Customer No.: 25280 Express Mail Label No.: EL 992174150 US

Case No.: 5682A

5

10

31. The composition of claim 24 wherein said composition comprises both a hydrophobic crosslinking component and a fluorocarbon repellent component.

- 32. The composition of claim 24 wherein said composition additionally comprises:
 - (d) an antistatic component.
 - 33. A textile treated with a composition comprising:
 - --a substrate, and
 - --a treating composition of:
 - --a fluorochemical-containing soil release component;
 - --a further component selected from (a) or (b):
 - (a) a crosslinking component;
 - (b) a fluorochemical-containing repellent; and
 - --an antimicrobial agent;
- --further wherein said textile exhibits according to modified AATCC Test Method 147 the inhibition of microbial growth upon said textile.
- 34. The textile of claim 33 wherein the composition of said fluorochemical-containing soil release component comprises a polymeric material selected from the group consisting of:

Inventor(s): Fang et. al. 31 US PTO Customer No.: 25280 Express Mail Label No.: EL 992174150 US

Case No.: 5682A

5

acrylate-containing polymers, methacrylate-containing polymers, urethanecontaining polymers, and fluorinated esters.

35. The composition of claim 33 wherein said crosslinking component comprises a derivative of isocyanate.